

USP33 / VDU1 Antibody (clone 5B5)
Mouse Monoclonal Antibody
Catalog # ALS14085**Specification**

USP33 / VDU1 Antibody (clone 5B5) - Product Information

Application	WB, IF, IP, IHC
Primary Accession	Q8TEY7
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	107kDa KDa

USP33 / VDU1 Antibody (clone 5B5) - Additional Information**Gene ID** 23032**Other Names**

Ubiquitin carboxyl-terminal hydrolase 33, 3.4.19.12, Deubiquitinating enzyme 33, Ubiquitin thioesterase 33, Ubiquitin-specific-processing protease 33, VHL-interacting deubiquitinating enzyme 1, hVDU1, USP33, KIAA1097, VDU1

Target/Specificity

Human USP33

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

USP33 / VDU1 Antibody (clone 5B5) is for research use only and not for use in diagnostic or therapeutic procedures.

USP33 / VDU1 Antibody (clone 5B5) - Protein Information**Name** USP33**Synonyms** KIAA1097, VDU1**Function**

Deubiquitinating enzyme involved in various processes such as centrosome duplication, cellular migration and beta-2 adrenergic receptor/ADRB2 recycling. Involved in regulation of centrosome duplication by mediating deubiquitination of CCP110 in S and G2/M phase, leading to stabilize CCP110 during the period which centrioles duplicate and elongate. Involved in cell migration via its interaction with intracellular domain of ROBO1, leading to regulate the Slit signaling. Plays a role in commissural axon guidance cross the ventral midline of the neural tube in a Slit-dependent manner, possibly by mediating the deubiquitination of ROBO1. Acts as a regulator of G- protein coupled receptor (GPCR) signaling by mediating the deubiquitination of beta-arrestins (ARRB1 and ARRB2) and beta-2 adrenergic receptor (ADRB2). Plays a central role in ADRB2 recycling and

resensitization after prolonged agonist stimulation by constitutively binding ADRB2, mediating deubiquitination of ADRB2 and inhibiting lysosomal trafficking of ADRB2. Upon dissociation, it is probably transferred to the translocated beta-arrestins, leading to beta-arrestins deubiquitination and disengagement from ADRB2. This suggests the existence of a dynamic exchange between the ADRB2 and beta-arrestins. Deubiquitinates DIO2, thereby regulating thyroid hormone regulation. Mediates deubiquitination of both 'Lys-48'- and 'Lys-63'-linked polyubiquitin chains.

Cellular Location

Cytoplasm, perinuclear region. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome Note=Associates with centrosomes predominantly in S and G2 phases but less in G1 phase (PubMed:23486064).

Tissue Location

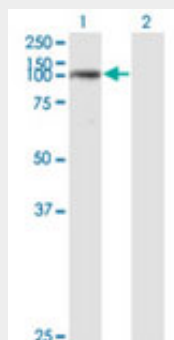
Widely expressed..

USP33 / VDU1 Antibody (clone 5B5) - Protocols

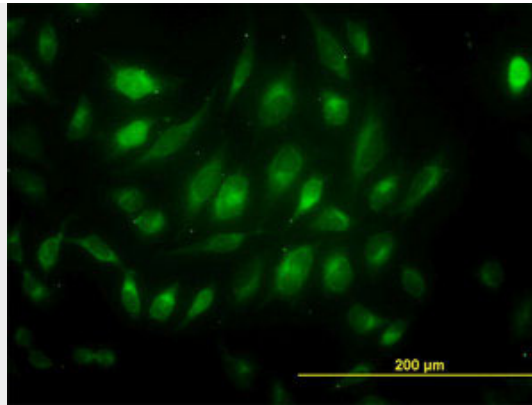
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

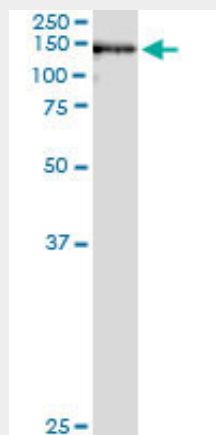
USP33 / VDU1 Antibody (clone 5B5) - Images



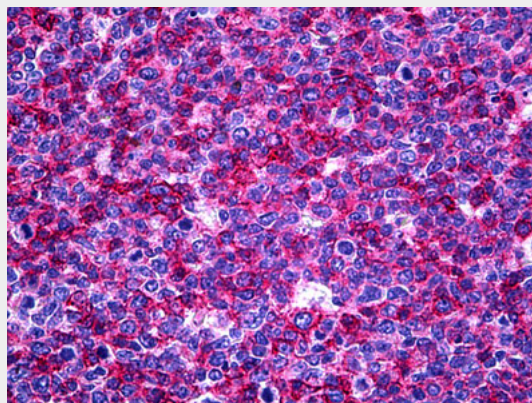
Western blot of USP33 expression in transfected 293T cell line by USP33 monoclonal antibody,...



Immunofluorescence of monoclonal antibody to USP33 on HeLa cell. [antibody concentration 20 ug/ml]



Immunoprecipitation of USP33 transfected lysate using anti-USP33 monoclonal antibody and Protein...



Anti-USP33 antibody IHC of human tonsil.

USP33 / VDU1 Antibody (clone 5B5) - Background

Deubiquitinating enzyme involved in various processes such as centrosome duplication, cellular migration and beta-2 adrenergic receptor/ADRB2 recycling. Involved in regulation of centrosome duplication by mediating deubiquitination of CCP110 in S and G2/M phase, leading to stabilize CCP110 during the period which centrioles duplicate and elongate. Involved in cell migration via its interaction with intracellular domain of ROBO1, leading to regulate the Slit signaling. Plays a role in commissural axon guidance cross the ventral midline of the neural tube in a Slit-dependent manner, possibly by mediating the deubiquitination of ROBO1. Acts as a regulator of G-protein

coupled receptor (GPCR) signaling by mediating the deubiquitination of beta-arrestins (ARRB1 and ARRB2) and beta-2 adrenergic receptor (ADRB2). Plays a central role in ADRB2 recycling and resensitization after prolonged agonist stimulation by constitutively binding ADRB2, mediating deubiquitination of ADRB2 and inhibiting lysosomal trafficking of ADRB2. Upon dissociation, it is probably transferred to the translocated beta- arrestins, leading to beta-arrestins deubiquitination and disengagement from ADRB2. This suggests the existence of a dynamic exchange between the ADRB2 and beta-arrestins. Deubiquitinates DIO2, thereby regulating thyroid hormone regulation. Mediates deubiquitination of both 'Lys-48'- and 'Lys-63'-linked polyubiquitin chains.

USP33 / VDU1 Antibody (clone 5B5) - References

Li Z.,et al.J. Biol. Chem. 277:4656-4662(2002).
Kikuno R.,et al.DNA Res. 6:197-205(1999).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Gregory S.G.,et al.Nature 441:315-321(2006).
Curcio-Morelli C.,et al.J. Clin. Invest. 112:189-196(2003).